Stoller
Hanford Office

HGLP-LDR-023

299-W10-79 (A7169)
Log Data Report

Borehole Information:

Borehole:	299-W10-79 (A7169)		Site:	216-T-7 Tile Field	
Coordinates (WA St Plane)		GWL[1] (ft):	None	GWL Date:	05/31/06
North	East	Drill Date	Elevation (ft) (TOC)	Total Depth (ft)	Type
136663.191	566651.108	12/48	675.68	25	Cable

Casing Information:

Casing Type	Stickup (ft)	Outer Diameter (in.)	Inside Diameter (in.)	Thickness (in.)	Top (ft)	Bottom (ft)
Welded steel	0.0	8 5/8	8	5/16	0.0	25

Borehole Notes:

Casing diameter and stickup measurements were acquired using a caliper and steel tape. Logging data acquisition is referenced to the top of casing (TOC).

Spectral Gamma Logging System (SGLS) Equipment Information:

Logging System:	Gamma 1N	Type:	SGLS (60%) SN: 45TP22010A
Effective Calibration Date:	04/05/06	Calibration Reference:	DOE/EM-GJ1183-2006
		Logging Procedure:	MAC-HGLP 1.6.5, Rev. 0

Spectral Gamma Logging System (SGLS) Log Run Information:

Log Run	1	2 Repeat			
Date	05/31/06	05/31/06			
Logging Engineer	Spatz	Spatz			
Start Depth (ft)	21.0	21.0			
Finish Depth (ft)	0.0	16.0			
Count Time (sec)	100	100			
Live/Real	R	R			
Shield (Y/N)	N	N			
MSA Interval (ft)	1.0	1.0			
ft/min	N/A[2]	N/A[3]			
Pre-Verification	AN029CAB	AN029CAB			
Start File	AN029000	AN029022			
Finish File	AN029021	AN029027			
Post-Verification	AN029CAA	AN029CAA			
Depth Return Error (in.)	N/A	N/A			
Comments	No fine-gain adjustment	Repeat section.			

Logging Operation Notes:

Logging was conducted with a centralizer on the sonde. A repeat section was collected to evaluate the logging system's performance. Pre- and post-survey verification measurements were acquired using the Amersham verifier, SN 118. Maximum borehole depth achieved was 21.4 ft before the sonde un-weighted.

Analysis Notes:

Analyst:	Pope	Date:	11/2/06	Reference:	GJO-HGLP 1.6.3, Rev. 0

Pre-run and post-run verifications for the logging systems were performed before and after the day's data acquisition. Acceptance criteria were met.

SGLS spectra were processed in batch mode using APTEC SUPERVISOR to identify individual energy peaks and determine count rates. Concentrations were calculated using the EXCEL worksheet template identified as G1NApr06.xls. A casing correction for 0.3125-in. thick casing was applied to the SGLS data.

Results and Interpretations:

^{137}Cs was detected by the SGLS during logging of this borehole at 0 and 10 ft. The peak at 0 ft is verified by visual inspection of the spectrum. The concentration is 0.15 pCi/g. The peak at 10 ft is not verifiable visually, and is spurious. No other manmade radionuclides are identified in this borehole.

The repeat sections for the SGLS indicate good agreement for the naturally occurring radionuclides.

List of Plots:

Man-Made Radionuclides
Natural Gamma Logs
Combination Plot
Total Gamma and Dead Time
Repeat Section of Natural Gamma Logs

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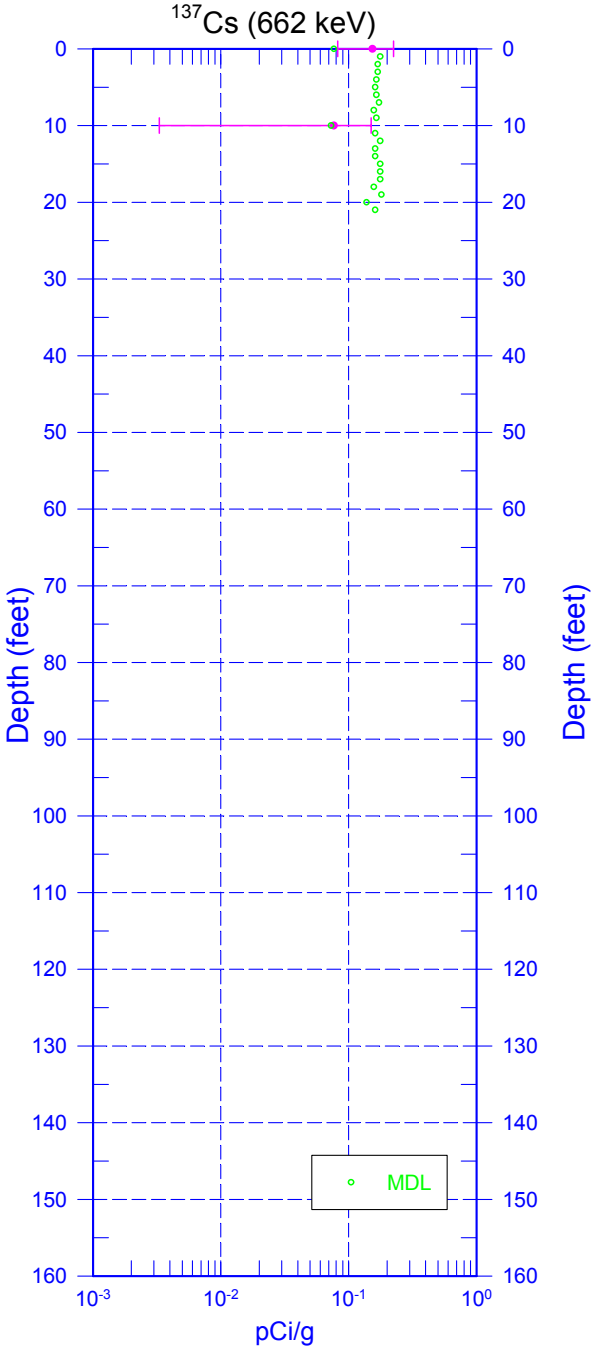
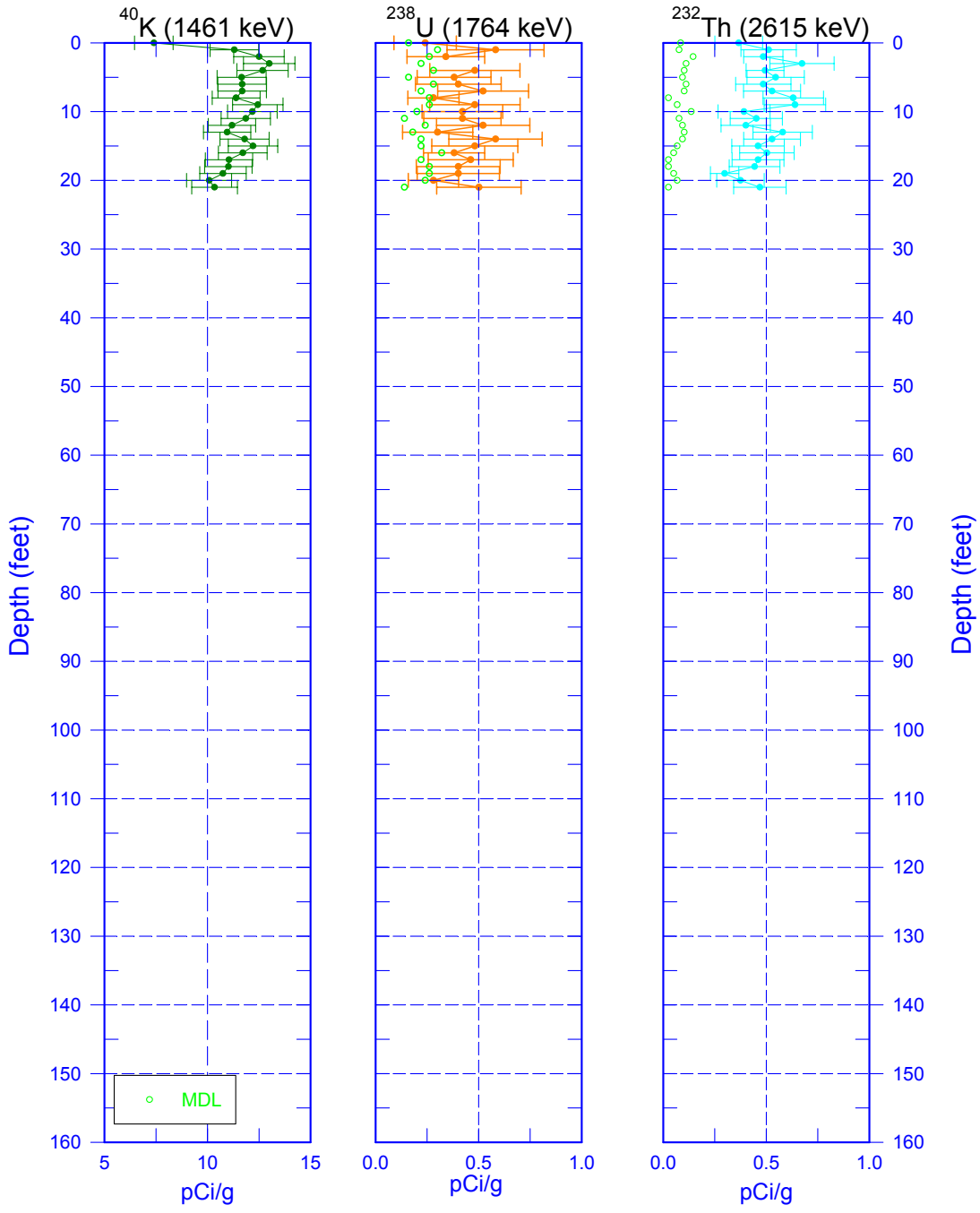
[1] GWL – groundwater level
[2] N/A – not applicable
[2] N/A – not applicable

299-W10-79 (A7169)
Man-Made Radionuclides

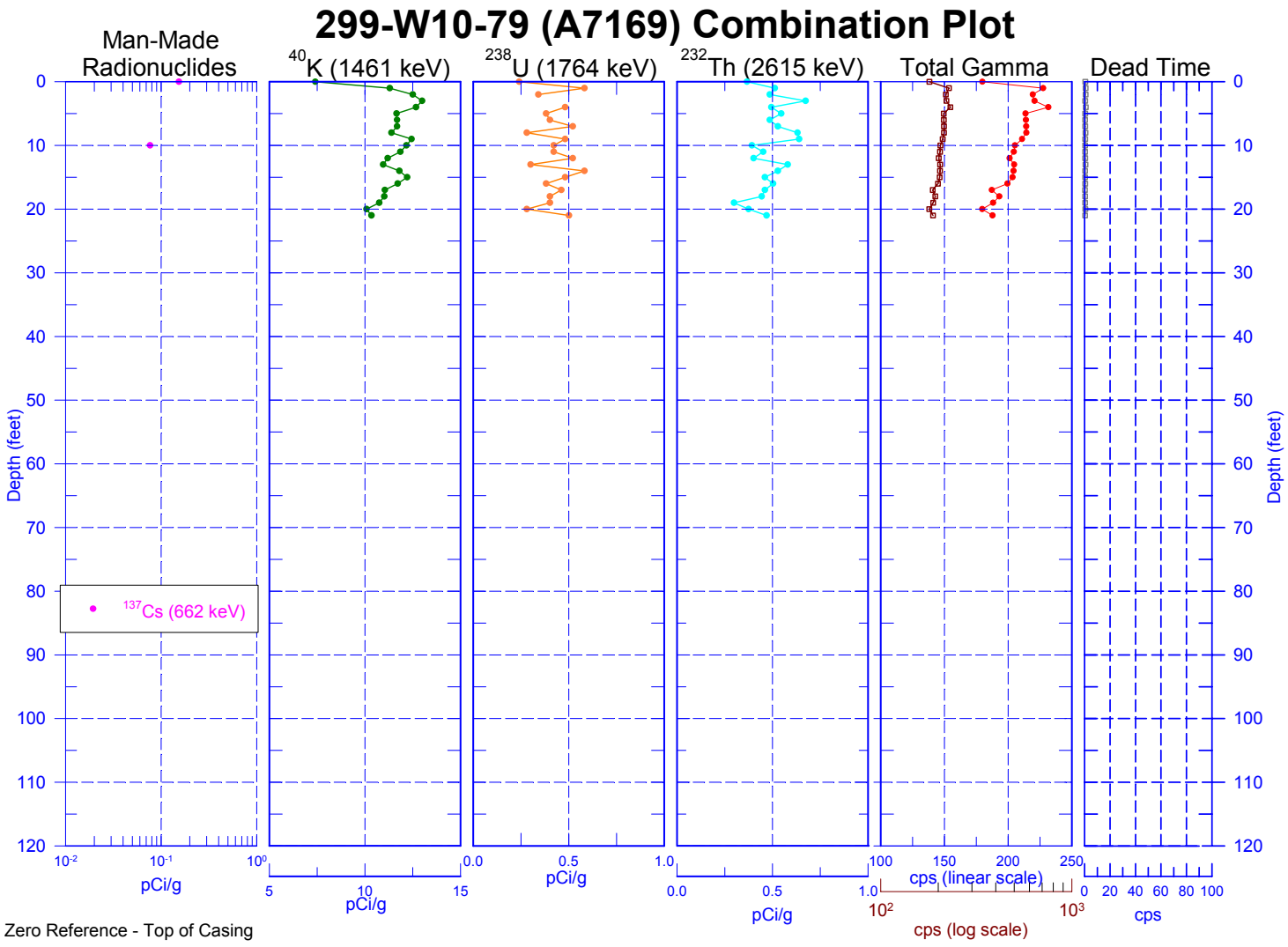


Zero Reference - Top of Casing

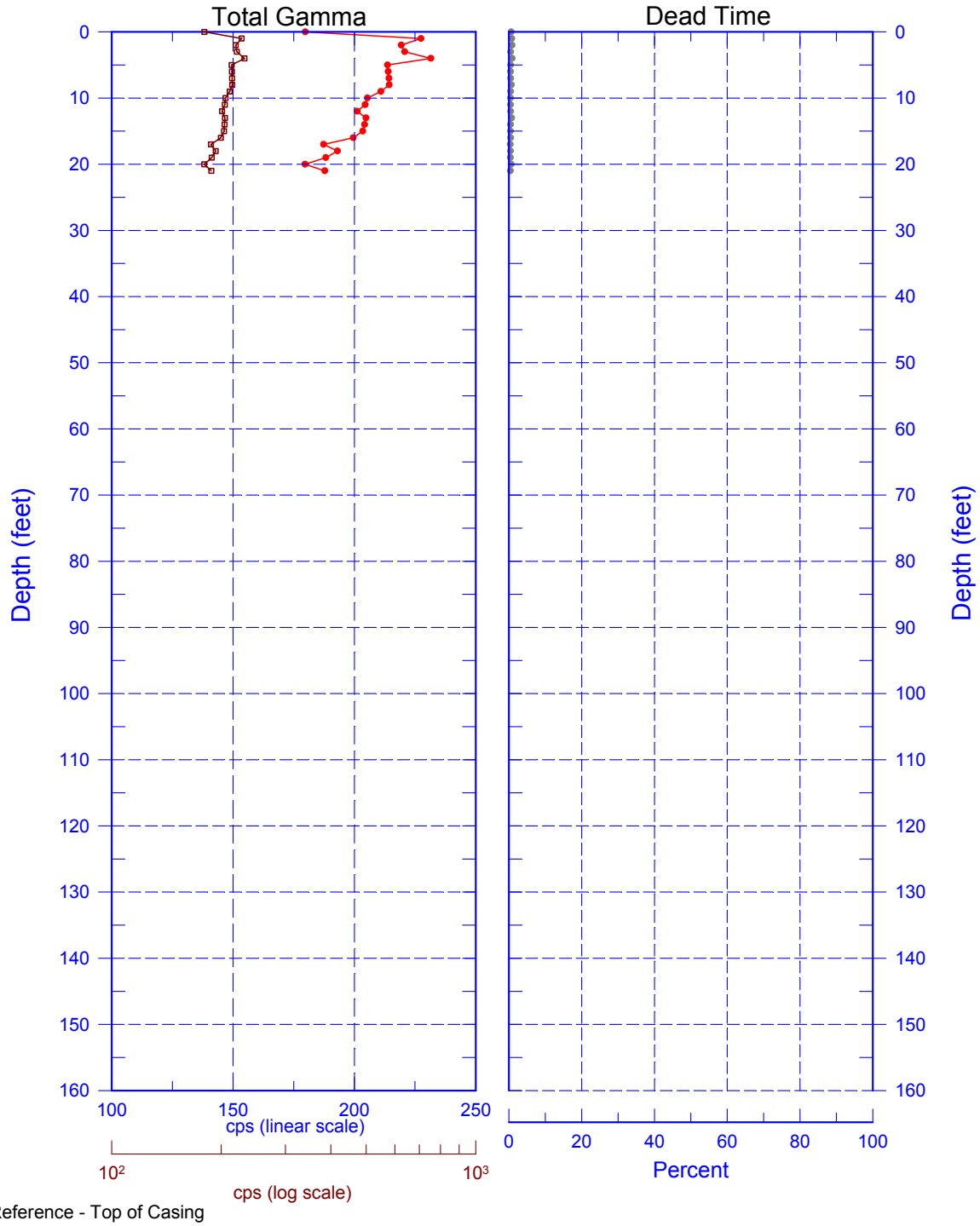
299-W10-79 (A7169)
Natural Gamma Logs



Zero Reference = Top of Casing


299-W10-79 (A7169) Combination Plot
Man-Made Radionuclides
40K (1461 keV)
238U (1764 keV)
232Th (2615 keV)
Total Gamma
Dead Time
Depth (feet)
137Cs (662 keV)
pCi/g
cps (linear scale)
cps (log scale)
cps
Zero Reference - Top of Casing

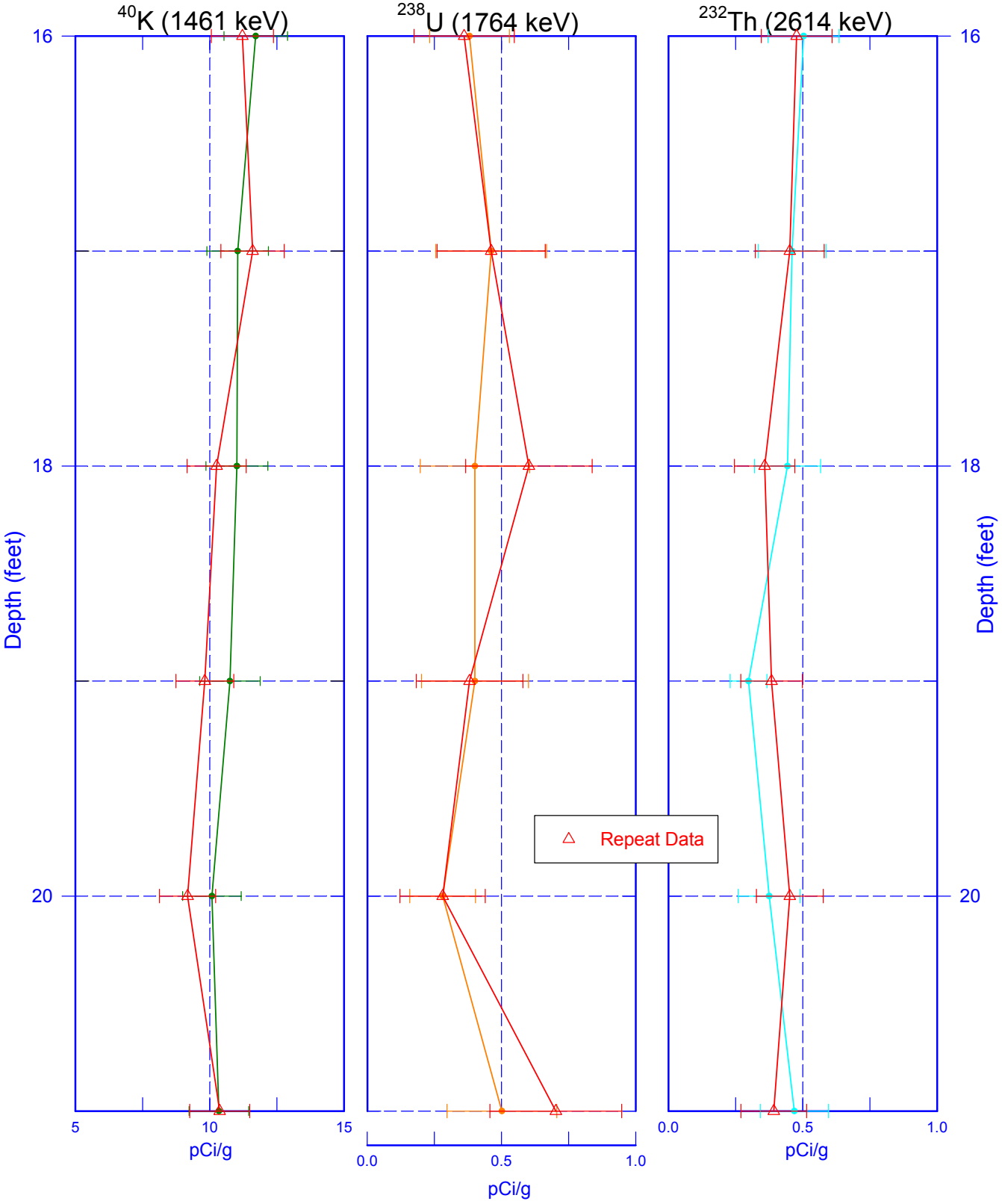
299-W10-79 (A7169)
Total Gamma & Dead Time



Reference - Top of Casing

299-W10-79 (A7169)

Repeat Section of Natural Gamma Logs



Zero Reference - Top of Casing